# Frisco Fire Department – Fire Marshal Office

# Fire Prevention – Permit Division

Permit Submittal Guidelines

And

**Inspection Requirements** 





Permit Guidelines rev.2008.doc

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# **Adopted Codes and Standards**

- 2006 International Fire Code with Local Amendments (IFC)
- 2006 International Building Code with Local Amendments (IBC)
- 2002 National Fire Protection Association (NFPA 13R) Ordinance # 00-12-17 and (NFPA 13) Ordinance # 00-12-16 with Local Amendments
- City Ordinance # 08-04-39: 2006 International Fire Code can be viewed at www.friscofire.com.
- 2005 National Electrical Code with Local Amendments (NEC)
- 2006 International Mechanical Code with Local Amendments (IMC)
- 2006 International Plumbing Code with local Amendments (IPC)
- 2006 International Fuel Gas Code with local Amendments
- 2006 International Residential Code with Local Amendments (IRC)

Additional city ordinances can be viewed on the City of Frisco web site. www.ci.frisco.tx.us

# **Permit Submittal Guidelines**

To provide an efficient plan submittal and review process, the Frisco Fire Department Fire Marshals Office, would like to assist in the understanding of the submittal procedures and requirements.

Plans shall be submitted to the Fire Marshals Office

Frisco Fire Department-Central Fire Station Attention: Fire Marshals Office-Plan Review 8601 Gary Burns Dr. PO Drawer 1100 Frisco, Texas 75034

Our goal is to provide a complete and accurate review within 10 to 14 business days for the first submittals and 5 to 7 business days for re-submittals.

• Expedited Review: Request for an expedited review is warranted. Every effort will be made to accommodate the request. The Fire Marshals office will assess the complexity and size of the submitted system(s) to determine if an efficient review is applicable.

The submitting contractor is responsible for complying with all local adopted codes, standards and amendments.

These guidelines are only to assist in the submittal procedures and are not to be interpreted as containing all data, codes and standards required for proper system design and/or approval.

Submittals require the completion of the "Permit Application". <u>Plans will not be received without a completed application.</u>

<u>Please do not send payment with submittals</u>. You will be notified of the assessed permit amount once the plan review is complete.

The installation shall be in accordance with the approved plans. Any deviation from the approved plans must be discussed and approved by the AHJ. Some changes will require a re-submittal to the Fire Marshals Office and an additional review fee will be assessed. Final approvals are subject to field inspections.

# Installation shall not begin without a plan submittal and Fire Marshal approval.

A permit shall be posted in a permanent location until the completion of the project. An approved set of stamped or signed plans shall be available on-site at all times for the inspector.

Permit application can be obtained from Central Fire Station or on the Frisco Fire Department web site, www.friscofire.com.

# **Minimum Submittal Information**

Submittal requirements shall include, but not be limited to, the following:

- 1. A minimum of three (3) sets of drawings shall be submitted.
  - a. Plans shall be submitted as blue or black-line drawings. Max 36 inches high.
  - b. Plans shall be clear and legible.
  - c. Plans shall include interior walls and rooms. The use of all rooms shall be identified on the plans.
  - d. Small Lease, Tenant Finish Out or Building Alteration can be submitted on 8 ½ x 11 sheets with Fire Marshal approval.
  - e. Faxed submittals are allowed with Fire Marshal approval.
  - f. Refer to the 2006 International Fire Code and NFPA Guidelines for additional required submittal information.
- 2. <u>A Site Plan shall be included with all submittals</u>. Plan shall include the building orientation, fire lanes, fire hydrants and access.
- 3. One (1) set of specification/submittal book and fire alarm battery calculations or fire sprinkler hydraulic calculations will be required.
- 4. Occupancy classification and type of construction shall be indicated.
- 5. The plans, calculations, and specifications, shall be reviewed and signed by the appropriate state licensed design professional.
- 6. Copy of the applicable State Registration Certificate shall be included with all submittals:
- Automatic Fire Alarm: (ACR)-(Fire Alarm Planning Superintendent);
- Automatic Fire Sprinkler: (SCR, SCR-D, SCR-U) (RME-G, RME-D, RME-U);
- Extinguisher:(ECR);
- Texas Registered Professional Engineer

#### **Permit Fees**

- 1. Water Based Fire Suppression System: (Per Square Foot of Building Area)
  - \$0.03 per square foot (minimum \$50.00)
- 2. Separate Standpipe fee: \$150.00
- 3. Special Fire Suppression Systems: (Kitchen Hood/FM200) \$75.00
- 4. Fire Alarm Systems:
  - \$50.00 per building for less than ten (10) devices;
  - \$75.00 per building for eleven (11) to twenty-five (25) devices;
  - \$150.00 per building for more than twenty-five (25) devices;
  - \$200.00 per building for more than one hundred (100) devices;
  - \$400.00 per building for more than two hundred (200) devices;
  - \$400.00 = \$2.00 for each additional device over four hundred (400) devices
- 5. Mechanical Trench Burn: \$200.00 per day.
- 6. Underground Fire Main (only): \$50.00 per system.
- 7. Single Family Residential Automatic Fire Sprinkler Systems:
  - (Per square foot of building) \$0.03 per square foot (minimum \$50.00)
- 8. Reinspection Fees (Paid prior to scheduling the re-inspection):
  - \$50.00 first re-inspection
  - \$100.00 second re-inspection
  - \$150.00 third and subsequent re-inspections
- 9. Limited Access Security Gates and Perimeter Fencing: \$100.00 per system
- 10. Operational permits are required for the following:
  - Fire Works \$50.00
  - Carnivals and Fairs \$50.00
  - Fire Hydrants and Valves per 105.6.16 \$50.00
- 11. Underground or Aboveground Storage Tank: \$100.00
- 12. Storage Tanks:
  - \$100.00 for installation, repair damage to, abandonment, removal, place temporarily out of service, or close or substantial modification of a storage facility when the amounts listed in IFC Table 105.6.20 are exceeded.
  - Repair of Fuel Line (Pressure Test): \$100.00
- 13. Battery Systems Installation of Battery Systems with Liquid Capacity >50 gallons: \$100.00
- 14. Compressed Gases Construction of compressed gases greater than exempt quantities: \$100.00
- 15. Industrial Oven Installation Permit; \$100.00
- 16. Expedited Plan Review: \$100.00
- 17. Drilling Fee (Oil and Natural Gas Wells):
  - New Oil or Natural Gas Well: 5000.00
  - Operational Transfer Fee: \$500.00
  - Annual Fee: \$100.00
  - Appeal Fee: \$100.00
- 18. Plan resubmittal Fee: \$50.00
- 19. Building Access Control Fee: \$50.00

# **Inspection Request and Procedures**

#### A. Inspection Requests:

- 1. To request an inspection call Fire Marshals Office Inspection Request Line at (972) 292 6328 or by walk-in at Central Fire Station.
- 2. Requests must be made at least 24 hours in advanced.
- 3. Inspections are conducted Monday Friday from 8 a.m. to 5 p.m.
- 4. <u>The Fire Marshals Office will contact you with a date and time.</u> Every effort will be made to grant you the time and date requested.

#### An inspection is not scheduled until you are contacted by the Fire Marshals Office.

- 5. Early and after hour inspections are warranted and must be scheduled 48 hours in advanced. Building owner and/or tenant notification is required where necessary.
- 6. The following information is needed to process your inspection request:
  - a. Name and phone number of person making the request.
  - b. Name of company.
  - c. Name and physical address of project.
  - d. Requested date and time of inspection.
  - e. Type of inspection.
  - f. Fire Permit Number <u>Located upper right corner of permit application</u>.
- 7. A representative from the requesting company must be present at time of inspection.
- 8. A permit shall be posted in a permanent location until the completion of the project.
- 9. An approved set of stamped or signed plans shall be available on-site at all times for the inspector.

#### Contractor shop drawings are not considered approved plans.

- 10. All previous inspection tags must remain on site for the inspectors viewing.
- B. Required Inspections:

Inspections shall include, but not be limited, to the following:

- 1. Fire Sprinkler Underground (Fire Main):
  - a. Must be requested by the installing contractor.
  - b. Visual All underground piping and joints must be exposed, with the labeling of the pipe legible from grade. All thrust blocks uncovered and exposed to grade.
    - Exception: With Fire Marshal approval, underground line may be center loaded within three (3) feet either side of pipe joints and thrust blocks.
  - c. Hydrostatic Test Minimum 200 psi for two hours. <u>No pressure drop allowed.</u> Testing will be from the gate valve to the riser flange.

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- d. Flush Must be witnessed by the Fire Marshals office. Flushing must be completed prior to stacking the riser to the overhead piping.
- e. Embedment: Minimum 6" of compacted crushed stone, Std. Gradation undercut extending to centerline of piping. Initial backfill of washed or cushioned sand, to a depth of twelve (12) inches above the top of the piping. Fill shall be properly compacted and precautions taken to insure permanent stability. Sandy loam dirt is <u>not</u> acceptable.
- 2. Above Ground Automatic Fire Sprinkler Systems: Commercial
  - a. <u>Must be requested by the installing contractor</u>.
  - b. Verify completion of underground inspections prior to stacking riser.
  - c. Hydrostatic Test:
    - Minimum 200 psi for two hours. No pressure drop allowed.
    - All ceiling grid or framing must be in place, sprinkler heads installed and drops cut to length prior to inspection.
    - The system must be left uncovered and visible from the floor.
    - A hydrostatic test is required for all new installations and for tenant finish-outs/alterations with twenty or more sprinkler heads added and /or relocated.
    - Must obtain fire sprinkler inspection prior to ceiling cover-up inspection from Developmental Services.

# d. Visuals:

- Visual sprinkler inspections are conducted on tenant finish-outs/alterations with nineteen or fewer heads added and/or relocated.
- City pressure required on system.
- All ceiling grid or framing must be in place, sprinkler heads installed and drops cut to length prior to inspection.
- The system must be left uncovered and visible from the floor.
- Must obtain fire sprinkler inspection prior to ceiling cover-up inspection from Developmental Services.
- e. Inclement Weather Protection:
  - 1. Where aboveground water filled supply pipes, risers, system risers, or feed mains are in areas that are subject to temperatures below 40 degrees Fahrenheit. Proper freeze protection shall be required to maintain a minimum temperature between 40 degrees Fahrenheit and 120 degrees Fahrenheit.
  - 2. It is the owner's responsibility for maintaining adequate heat as required by NFPA and the City of Frisco.
  - 3. Shell Buildings: Buildings built without a tenant. The building does not have a permanent heat source. A heat source shall be required in all areas leased or un-leased that cannot provide a permanent heat source between the months of November through March.
- 3. Above Ground Automatic Fire Sprinkler Systems: Residential
  - a. Must be requested by the installing contractor.
  - b. Verify completion of underground inspections prior to stacking riser.
  - c. Hydrostatic Test:
    - Minimum 200 psi for two hours. No pressure drop allowed.
    - The system must be left uncovered and visible from the floor.
    - All freeze protection; fire caulking and nail plates must be installed at time of hydrostatic test.

- Underground supply must be in place at time of hydrostatic test.
- Must obtain fire sprinkler inspection prior to framing inspection from Developmental Services.

#### 4. Automatic Fire Alarm Systems:

- a. Please reference Final Fire Inspection requirements.
- b. The Fire Alarm System test will be conducted with the Fire Final Inspection.
- c. The system must be pre-tested prior scheduling the acceptance test.
- d. All initiating devices and all signaling devices will be tested and inspected.
- e. The City of Frisco Fire Department requires that a water flow alarm be a distinctive and separate alarm.
- f. All systems are required to be monitored by a UL listed Central Station.
- g. Construction and final clean up must be completed prior to scheduling the acceptance test.

#### 5. Kitchen Hood:

- a. New Systems are conducted with the Fire Final Inspection.
- b. Air Test, Utility Shunt, Manual Pull, Exhaust and Make-Up Air.
- c. Fire Alarm notification.
- d. K-Class extinguisher placed within 30 feet of cooking appliance.
- e. Existing system inspections made upon request.

# 6. Final Fire Inspection: Commercial

- a. Must be requested by the General Contractor.
- b. Conducted on all new construction, alteration/addition and new Certificate of Occupancies.
- c. The Final Fire Inspection must be conducted prior to Developmental Services Certificate of Occupancy Inspection.
- d. The inspection consist of, but not limited, to the following:
  - Completion of all phases of construction.
  - Fire lanes and fire hydrants.
  - Address placard.
  - Automatic Fire Alarm acceptance.
  - Kitchen Hood Suppression System acceptance.
  - Automatic Fire Sprinkler, Standpipe and Fire Pump acceptance.
  - Knox Box with appropriate keys. A 3200 series is required single tenant occupancies and a 4400 series is required for multiple occupancy structures.
  - Elevator re-calls and shunts inspection. State elevator inspection must be conducted prior to Fire Final.
  - Fire department access.
  - Emergency egress and exit signs.
  - Fire extinguisher placement. All extinguishers must be tagged.
  - Where applicable, a sign shall be affixed and readily visible on exit doors stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters not less than 1 inch high on contrasting background.
  - All required signs must be in place. (Stair identification, emergency egress, electrical room, fire riser, fire alarm and mechanical room, etc).
  - Smoke evacuation and exhaust acceptance, where applicable.

- 7. Tenant Finish Out inspection:
  - a. Must be requested by the General Contractor.
  - b. Automatic Fire Sprinkler visual or hydrostatic test. Reference Automatic Fire Sprinkler inspection requirements.
  - c. Fire Final:
    - Fire alarm acceptance.
    - Final sprinkler acceptance.
    - Fire extinguishers.
    - Exit signs.
- 8. Aboveground Storage Tanks (AST) Inspection:
  - a. May NOT be used for retail sales.
  - b. Fire Marshal permit approved and issued prior to any work performed. This shall include the construction notification and acceptance by TCEQ.
  - c. <u>Must be requested by the installing contractor.</u>
  - d. Final acceptance will be conducted during the Fire Final Inspection.
  - e. Vaulted aboveground tanks in accordance with U.L. 2085 are any U.L. listed standard 142 steel aboveground tank for flammable or combustible liquid all portions of which shall be en enclosed in a secondary containment and encased with approved material to obtain a two (2) hour fire resistance rating.
  - f. All permanent tanks must be in compliance with the City of Frisco Fire Code Ordinance, International Fire Code, U.L. 2085, NFPA #30 and be approved by the Fire Marshal.
  - g. Documentation must be provided showing proper testing from the manufacturer.
  - h. Field tightness testing will be required on tanks and connections after installation and before being placed in service.
  - i. Horizontal shop fabricated tanks shall be tested either hydrostatically or with air pressure at not less than 3 psig and not more than 5 psig and vertical tanks at not less than 1.5 psig and not more than 2.5 psig for a minimum of one (1) hour.
  - j. Aboveground piping must be protected from external corrosion.
  - k. Labeling of all tanks shall be in accordance with NFPA 704. The tank must display the name of the product, the tank capacity in gallons, a DOT placard and an NFPA 704 placard.
  - 1. Warning signs shall be posted in the dispensing area and shall incorporate the following or equivalent wording and have red colored lettering on a white background.

#### **WARNING**

It is unlawful and dangerous To dispense gasoline into Unapproved containers.

#### NO SMOKING, WELDING OR OPEN FLAMES WITHIN 50 FEET.

#### STOP MOTOR.

m. Warning signs and NFPA 704 hazard signs shall have lettering at least three (3) inches in height and of weather-resistive materials.

- n. Vehicle impact protection required. Guard posts shall be a minimum of four (4) inch diameter and a minimum of twenty-four (24) inches in height concrete filled steel piping placed at four (4) foot spacing around the pad perimeter.
- o. An extinguisher with a minimum 40B:C rating is required at each tank or fuel dispensing location.
- p. Ground areas around tanks shall be kept free of weeds, trash, or other unnecessary combustible material to a minimum of ten (10) feet.
- 9. Underground Storage Tanks (UST) Inspection:
  - a. Must be requested by the installing contractor.
  - b. Fire Marshal permit approved and issued prior to any work performed. This shall include the construction notification and acceptance by TCEQ.
  - c. The system shall not be covered or product dispensed into the tank or lines until it has been inspected and approved by the Fire Marshal's Office.
  - d. Installation inspections shall include but not be limited to the following:
    - 1. Visual inspection of tanks and anchor system.
    - 2. Tanks and lines must be hydrostatically (or pneumatically where allowed by code) tested upon installation as may be appropriate.
    - 3. Tanks will be pneumatically tested at five (5) psi for a minimum of sixty (60) minutes. Lines will be tested pneumatically at 1.1 times the normal working pressure or hydrostatically tested at 1.5 times the normal working pressure (50 psi for 1 hour is acceptable). At no time shall the test pressure be less than 5psig the highest point of the system, and in no case shall the test pressure be maintained for less than 10 minutes. A soap bubble test of all fittings will be conducted at this time.
    - 4. Secondary containment piping shall be tested pneumatically at 5 psig for a minimum of sixty (60) minutes. A soap bubble test of all fittings will also be conducted at this time.
  - e. Final Acceptance Inspection: Shall include but not limited to the following.
    - 1. Part of the Fire Final Inspection.
    - 2. Emergency Shut Off or Electrical Disconnect. Installed not less than twenty (20) feet but not more than one hundred (100) feet from the fuel dispensing devices that they serve.
    - 3. Vehicle impact protection.
    - 4. Fire Extinguishers. A minimum fire extinguisher with a 40B:C rating is required at each fuel dispensing location.
    - 5. Warning signs shall be posted in the dispensing area and shall incorporate the following or equivalent wording and have red colored lettering on a white background. Warning sign lettering shall be three (3) inches in height and be of weather resistant material.

#### **For Attended Locations:**

#### WARNING

It is unlawful and dangerous To dispense gasoline into Unapproved containers.

# NO SMOKING, STOP MOTOR

#### **For Un-Attended Locations:**

Include the above requirements with the following additional warnings.

In case of fire or spill: Use Emergency Stop Button

# CALL 9-1-1 To report an accident or spill

10. Limited Access Security Gates: See Frisco Fire Department web site for information.

www.friscofire.com.

- 11. Building and Security Control Systems-Egress Control Devices Inspections:
  - a. Must be requested by the installing contractor.
  - b. Must be permitted through the Fire Marshal's Office.
  - c. Must meet all requirements of the City of Frisco and the 2006 International Fire Code, Section 1008.1.3.4 Access Controlled Egress Doors.
  - d. Delayed egress locks shall meet all requirements of the City of Frisco and the 2006 International Fire Code, Section 1008.1.8.6 Delayed Egress Locks.
- 12. Foster Care; Adoption; and Annual State Inspections:

Please contact the Fire Marshals Office directly (972) 292-6320.

# **Knox-Box Requirements**

#### 1. Definition:

*Knox-Box (Key Vault/Box):* A secure, tamperproof device with a lock operable only by a fire department master key, and containing building entry keys and other keys that may be required for access in an emergency.

### 2. When Required:

a. Where access to or within a structure or an area is restricted because of secured openings or where immediate access is necessary for life-saving or fire-fighting purposes

-Or-

b. Any structure that contains an automatic fire alarm system, automatic fire sprinkler system, commercial hood suppression system, or other fire suppression systems.

-Or-

- c. A key box may also be required in other instances when determined by the Chief.
- 3. Key Box Maintenance: The operator of the building shall immediately notify the fire department and provide the new key when a lock is changed, added or re-keyed. The key to such lock shall be secured in the key box.

# 4. Mounting:

- a. Once the knox boxes are received, the contractor or property owner will need to contact the Fire Marshals Office. This is to determine the best location to install the key box.
- b. The knox box shall be mounted from five to six feet above the finish grade.

#### 5. Purchasing:

The Fire Marshals Office must approve all types and quantity.

- a. Knox Box systems can be purchased online at <a href="www.knoxbox.com/store">www.knoxbox.com/store</a> or order form that is available at Central Fire Station. The Knox-Box will be sent to the address given. It will not be sent to the Frisco Fire Department.
- b. Types and Quantity:
  - 1. Knox Box 3200 Series required for all single tenant buildings.
  - 2. Knox Vault 4400 Series (single lock) required for all multiple tenant buildings.
  - 3. Surface mount or recessed mount is acceptable.
  - 4. Any color acceptable.
  - 5. A tamper switch is acceptable but not required by the Frisco Fire Department.
  - 6. The Fire Marshals Office will determine the quantity and placement.

#### 6. Required Keys:

- a. Keys must be available to obtain access to all areas of the structure.
- b. All keys must be labeled.
- c. The inventory of keys will vary depending on the requirements of the premises.
- d. The types of keys shall be, but not limited, to the following.
  - 1. Buildings that are three stories or less:

Master Key - Fire Riser/Pump Room - Fire Panel - Manual Pull - Fire Department Elevator Phase II - Access Card.

#### 2. High rise Buildings:

All High Rise structures will be required to have both a knox box and a secondary key box for fire department use.

- A. Knox Box: Shall contain a master key for entry and a key for access into the Fire Control room.
- B. Secondary box:
- 1. The secondary box shall be placed within the Fire Control room.
- 2. The secondary box is not required to be a Knox product.
- 3. The secondary box must be made of metal and of sufficient size to contain all necessary keys.
- 4. It shall be marked for Fire Department Use Only.
- 5. The keys shall be complete sets and labeled 1-2-3, etc.
- 6. Building with 5 to 6 stories shall require 3 sets. Additional sets of keys shall be available for each 2 additional stories.
- 7. Each set shall contain, but not limited, to the following:

Master Key - Fire Riser/Pump Room - Fire Panel - Manual Pull - Fire Department Elevator Phase I & II - Access Card - Fire Department Handset box.